

ABSTRACT

The present invention pertains to a process for the treatment of waste gas, preferably engine exhaust gas, in particular diesel or gasoline exhaust gas, wherein the waste gas is contacted with a zeolite Y which has a unit cell size of 24.17-24.45 Å, a water adsorption capacity ($p/p_0 = 0.2$, $T=25^\circ\text{C}$) of at most 5 wt.%, and a silica-alumina molar ratio of at least 40. The zeolite is used in adsorbent or catalytic applications, with catalytic applications particularly including oxidation, NO_x conversion, and NO_x trapping. The invention also pertains to a unit for use in this application comprising the specified zeolite.

It has been found that a zeolite with the specified properties has a high temperature stability under the conditions prevailing in this application. The use of this specific zeolite in this specific application leads to an adsorbent/catalyst with high activity and long life.